

2004 GALVESTON BAY INVASIVE SPECIES RISK ASSESSMENT
INVASIVE SPECIES SUMMARY

Created by: Environmental Institute of Houston, University of Houston-Clear Lake
and the Houston Advanced Research Center

Common Name: Kudzu
Latin Name: <i>Pueraria lobata</i>
Category: Terrestrial Plant
Place of Origin: Japan
Place of Introduction: Southeastern United States
Date of Introduction: Circa 1900
Growth/Size: “During peak growing season in early summer, this prolific vine can grow at a rate of a foot a day, easily covering and choking trees and understory vegetation. (http://www.vnps.org/invasive/invpuer.htm , accessed December 20, 2002)”
Habitat: “A hardy opportunist, kudzu grows in a variety of habitats and environmental conditions but does best on deep, well-drained, loamy soils. Almost any disturbed area is suitable habitat for this vine. Roadsides, old fields, vacant lots and abandoned yards are all prime spots for new kudzu growth. (http://www.vnps.org/invasive/invpuer.htm , accessed December 20, 2002)”
Attitude: Aggressive
Physical Description: “Kudzu is a perennial, trailing or climbing vine of the legume family. Dark green leaves, starchy fibrous roots, and elongated purple flowers with a fragrance reminiscent of grapes readily identify this aggressive vine. A dense stand of identically colored plants growing on and around everything in its path is also a familiar field mark. Rarely flowering, kudzu stems and roots spread out in all directions from root crowns, with new plants beginning at stem nodes every one to two feet. This dense packing of kudzu can result in tens of thousands of plants occupying a single acre of land. Kudzu leaves are hairy beneath, often tri-lobed, and in groups of three on the vine. The 1/2 to 3/4 inch purple flowers are pea-like in shape and are produced on plants exposed to direct sunlight. Kudzu fruits, present in October and November, are hairy, bean-like pods which produce only a few viable seeds in each pod cluster. It is thought that some seeds can remain dormant for several years before they germinate. During peak growing season in early summer, this prolific vine can grow at a rate of a foot a day, easily covering and choking trees and understory vegetation. (http://www.vnps.org/invasive/invpuer.htm)”
Management Recommendations / Control Strategies: include references for existing site-specific strategies “Control of well established kudzu stands can take up to 10 years. Persistent eradication of all root material is the key to the control of this pest, keeping in mind that a single kudzu patch may extend past landowner boundaries. The most effective method of control will depend on several factors: size of infested area, proximity to sensitive species or other desirable vegetation, and accessibility of the patch. Small patches of kudzu that are not well established (usually ones less than ten years old) can be eliminated by persistent weeding, mowing, or grazing during the growing season over a period of three to four years. Unfortunately, with root systems that can be up to 12 feet deep, eradication by direct root removal is not practical. Long-term treatment of heavily infested sites usually requires the application of herbicides over a period of up to five years to inhibit the growth of new shoots. Biodegradable glyphosate herbicides are recommended for control of kudzu in natural areas. Because glyphosate is a systemic, nonselective herbicide that affects all green vegetation, treatments should be carefully timed and applied by trained applicators. The best time for application of these herbicides is at the end of the growing season when the plants are actively transporting nutrients from the leaves and stems to root systems. When applied at the proper time, herbicides are transported to the roots where they kill the entire plant. In some areas, prescribed burning may be used as a follow-up treatment after herbicide application. Although it should be carefully and professionally handled, this two step process is effective in clearing out leaf litter and speeding re colonization of an area by desirable native plant species. (. http://www.vnps.org/invasive/invpuer.htm)” The following website describes several methods (mowing, grazing, burning, chemicals) for controlling kudzu, as well as

precautions. http://www.bugwood.caes.uga.edu/crp/controlling_kudzu_in_crp_stand.html

“A fungus from the sicklepod plant, which is found in the southeastern United States, effectively controls kudzu, a non-native invasive weed that has crept over more than 7 million acres in this country, according to Agricultural Research Service scientists in Stoneville, Miss. In greenhouse and field studies, the scientists found that the fungus *Myrothecium verrucaria* killed 100 percent of kudzu weeds. (<http://twri.tamu.edu/watertalk/archive/2000-Feb/Feb-2.5.html>, Accessed December 20, 2002)”

References (includes journals, agency/university reports, and internet links):

1. <http://www.vnps.org/invasive/invpuer.htm>, accessed December 20, 2002. Virginia Native Plant Society, 400 Blandy Farm Lane, Unit 2, Boyce, VA 22620
2. <http://www-aes.tamu.edu/mary/kudzu/kudzu.htm>. Texas A & M, College Station. Many good links to other Kudzu websites.
3. http://www.bugwood.caes.uga.edu/crp/controlling_kudzu_in_crp_stand.html
4. <http://twri.tamu.edu/watertalk/archive/2000-Feb/Feb-2.5.html>